

iGEM 2016 INSA Lyon Bibliography

Team INSA Lyon

October 2, 2016

References

- [1] John Achenbach and Yingfu Li. Structure-switching allosteric deoxyribozymes.
- [2] M.A. Alonso-Lomillo, O. Domínguez-Renedo, and M.J. Arcos-Martínez. Screen-printed biosensors in microbiology; a review. *Talanta*, 82(5):1629–1636, October 2010.
- [3] J. Alzeer and O. D. Scharer. A modified thymine for the synthesis of site-specific thymine-guanine DNA interstrand crosslinks. *Nucleic Acids Research*, 34(16):4458–4466, August 2006.
- [4] Lise Barthelmebs, Justyna Jonca, Akhtar Hayat, Beatriz Prieto-Simon, and Jean-Louis Marty. Enzyme-Linked Aptamer Assays (ELAAs), based on a competition format for a rapid and sensitive detection of Ochratoxin A in wine. *Food Control*, 22(5):737–743, May 2011.
- [5] Nan-Nan Bu, Ai Gao, Xi-Wen He, and Xue-Bo Yin. Electrochemiluminescent biosensor of ATP using tetrahedron structured DNA and a functional oligonucleotide for Ru(phen)₃²⁺ intercalation and target identification. *Biosensors and Bioelectronics*, 43:200–204, May 2013.
- [6] Jannette Carey, Vicki Cameron, Pieter L. De Haseth, and Olke C. Uhlenbeck. Sequence-specific interaction of R17 coat protein with its ribonucleic acid binding site. *Biochemistry*, 22(11):2601–2610, 1983.
- [7] Emanuel Carrilho, Andres W. Martinez, and George M. Whitesides. Understanding Wax Printing: A Simple Micropatterning Process for Paper-Based Microfluidics. *Analytical Chemistry*, 81(16):7091–7095, August 2009.
- [8] Ailiang Chen and Shuming Yang. Replacing antibodies with aptamers in lateral flow immunoassay. *Biosensors and Bioelectronics*, 71:230–242, September 2015.
- [9] Junhua Chen, Zhiyuan Fang, Puchang Lie, and Lingwen Zeng. Computational Lateral Flow Biosensor for Proteins and Small Molecules: A New Class of Strip Logic Gates. *Analytical Chemistry*, 84(15):6321–6325, August 2012.
- [10] Junhua Chen, Zhiyuan Fang, Jie Liu, and Lingwen Zeng. A simple and rapid biosensor for ochratoxin A based on a structure-switching signaling aptamer. *Food Control*, 25(2):555–560, June 2012.
- [11] Theodore K. Christopoulos, Eleftherios P. Diamandis, and Graham Wilson. Quantification of nucleic acids on nitrocellulose membranes with time-resolved fluorometry. *Nucleic acids research*, 19(21):6015–6019, 1991.

- [12] James R. Collett, Eun Jeong Cho, and Andrew D. Ellington. Production and processing of aptamer microarrays. *Methods*, 37(1):4–15, September 2005.
- [13] W. Gregory Cox and Victoria L. Singer. Fluorescent DNA hybridization probe preparation using amine modification and reactive dye coupling. *Biotechniques*, 36(1):114–123, 2004.
- [14] Joshua D. Czerwinski, Stephanie C. Hovan, and David P. Mascotti. Quantitative nonisotopic nitrocellulose filter binding assays: bacterial manganese superoxide dismutase–DNA interactions. *Analytical Biochemistry*, 336(2):300–304, January 2005.
- [15] Claudine M. Dojahn, Marlen Hesse, and Christoph Arenz. A chemo-enzymatic approach to specifically click-modified RNA. *Chemical Communications*, 49(30):3128, 2013.
- [16] Markéta Fialová, Jaroslav Kypr, and Michaela Vorlíčková. The thrombin binding aptamer GGTTGGTGTGGTTGG forms a bimolecular guanine tetraplex. *Biochemical and Biophysical Research Communications*, 344(1):50–54, May 2006.
- [17] K. C. Gupta, P. Sharma, P. Kumar, and S. Sathyanarayana. A general method for the synthesis of 3′-sulfhydryl and phosphate group containing oligonucleotides. *Nucleic acids research*, 19(11):3019–3026, 1991.
- [18] Kathleen B. Hall and James K. Kranz. Nitrocellulose filter binding for determination of dissociation constants. *RNA-protein interaction protocols*, pages 105–114, 1999.
- [19] Kun Han, Zhiqiang Liang, and Nandi Zhou. Design Strategies for Aptamer-Based Biosensors. *Sensors*, 10(5):4541–4557, May 2010.
- [20] Jörg S. Hartig, S. Hani Najafi-Shoushtari, Imke Grüne, Amy Yan, Andrew D. Ellington, and Michael Famulok. Protein-dependent ribozymes report molecular interactions in real time. *Nature biotechnology*, 20(7):717–722, 2002.
- [21] Greg T. Hermanson. *Bioconjugate techniques*. Elsevier Acad. Press, Amsterdam, 2. ed edition, 2008. OCLC: 836852676.
- [22] Hoang-Anh Ho and Mario Leclerc. Optical Sensors Based on Hybrid Aptamer/Conjugated Polymer Complexes. *Journal of the American Chemical Society*, 126(5):1384–1387, February 2004.
- [23] Jiong Hong, Yiran Wang, Xinhao Ye, and Y.-H. Percival Zhang. Simple protein purification through affinity adsorption on regenerated amorphous cellulose followed by intein self-cleavage. *Journal of Chromatography A*, 1194(2):150–154, June 2008.
- [24] F. Huang. Synthesis of adenosine derivatives as transcription initiators and preparation of 5′ fluorescein- and biotin-labeled RNA through one-step in vitro transcription. *RNA*, 9(12):1562–1570, December 2003.
- [25] Gabor L. Igloi. Nonradioactive labeling of RNA. *Analytical biochemistry*, 233(1):124–129, 1996.
- [26] Sidhartha Jain, Radha Rajasingham, Farzad Noubary, Erin Coonahan, Ryan Schoepfle, Rachel Baden, Michael Curry, Nezam Afdhal, Shailendra Kumar, and Nira R. Pollock. Performance of an Optimized Paper-Based Test for Rapid Visual Measurement of Alanine Aminotransferase (ALT) in Fingerstick and Venipuncture Samples. *PLOS ONE*, 10(5):e0128118, May 2015.

- [27] Sulay D. Jhaveri, Romy Kirby, Rick Conrad, Emily J. Maglott, Michael Bowser, Robert T. Kennedy, Gary Glick, and Andrew D. Ellington. Designed Signaling Aptamers that Transduce Molecular Recognition to Changes in Fluorescence Intensity. *Journal of the American Chemical Society*, 122(11):2469–2473, March 2000.
- [28] Yaxin Jiang, Xiaohong Fang, and Chunli Bai. Signaling Aptamer/Protein Binding by a Molecular Light Switch Complex. *Analytical Chemistry*, 76(17):5230–5235, September 2004.
- [29] Meng Jing and Michael T. Bowser. Methods for measuring aptamer-protein equilibria: A review. *Analytica Chimica Acta*, 686(1-2):9–18, February 2011.
- [30] O. Kensch. HIV-1 Reverse Transcriptase-Pseudoknot RNA Aptamer Interaction Has a Binding Affinity in the Low Picomolar Range Coupled with High Specificity. *Journal of Biological Chemistry*, 275(24):18271–18278, June 2000.
- [31] Anna Yu Kolosova, Sarah De Saeger, Liberty Sibanda, Ron Verheijen, and Carlos Van Peteghem. Development of a colloidal gold-based lateral-flow immunoassay for the rapid simultaneous detection of zearalenone and deoxynivalenol. *Analytical and Bioanalytical Chemistry*, 389(7-8):2103–2107, December 2007.
- [32] Karl Kossen, Narendra K. Vaish, Vasant R. Jadhav, Christopher Pasko, Hong Wang, Robert Jenison, James A. McSwiggen, Barry Polisky, and Scott D. Seiwert. High-throughput ribozyme-based assays for detection of viral nucleic acids. *Chemistry & biology*, 11(6):807–815, 2004.
- [33] Gionata Leone, Bob van Gemen, Cornelis Dirk Schoen, Harm van Schijndel, and Fred Russel Kramer. Molecular beacon probes combined with amplification by NASBA enable homogeneous, real-time detection of RNA. *Nucleic Acids Research*, 26(9):2150–2155, 1998.
- [34] Meng Li, Yuan-Ting Li, Da-Wei Li, and Yi-Tao Long. Recent developments and applications of screen-printed electrodes in environmental assays—A review. *Analytica Chimica Acta*, 734:31–44, July 2012.
- [35] Yi Lu and Juewen Liu. Functional DNA nanotechnology: emerging applications of DNazymes and aptamers. *Current Opinion in Biotechnology*, 17(6):580–588, December 2006.
- [36] Citartan Marimuthu, Thean-Hock Tang, Junji Tominaga, Soo-Choon Tan, and Subash C. B. Gopinath. Single-stranded DNA (ssDNA) production in DNA aptamer generation. *The Analyst*, 137(6):1307, 2012.
- [37] Andres W. Martinez, Scott T. Phillips, and George M. Whitesides. Three-dimensional microfluidic devices fabricated in layered paper and tape. *Proceedings of the National Academy of Sciences*, 105(50):19606–19611, 2008.
- [38] N Navani and Y Li. Nucleic acid aptamers and enzymes as sensors. *Current Opinion in Chemical Biology*, 10(3):272–281, June 2006.
- [39] Irina A. Nazarenko, S. K. Bhatnagar, and R. J. Hohman. A closed tube format for amplification and detection of DNA based on energy transfer. *Nucleic acids research*, 25(12):2516–2521, 1997.
- [40] Razvan Nutiu and Yingfu Li. Aptamers with fluorescence-signaling properties. *Methods*, 37(1):16–25, September 2005.

- [41] Valeri Pavlov, Bella Shlyahovsky, and Itamar Willner. Fluorescence Detection of DNA by the Catalytic Activation of an Aptamer/Thrombin Complex. *Journal of the American Chemical Society*, 127(18):6522–6523, May 2005.
- [42] Victor Pavski and X Chris Le. Ultrasensitive protein–DNA binding assays. *Current Opinion in Biotechnology*, 14(1):65–73, February 2003.
- [43] Geertruida A. Posthuma-Trumpie, Jakob Korf, and Aart van Amerongen. Lateral flow (immuno)assay: its strengths, weaknesses, opportunities and threats. A literature survey. *Analytical and Bioanalytical Chemistry*, 393(2):569–582, January 2009.
- [44] Daniel Quesada-González and Arben Merkoçi. Nanoparticle-based lateral flow biosensors. *Biosensors and Bioelectronics*, 73:47–63, November 2015.
- [45] J. Rizzo, L.K. Gifford, X. Zhang, A.M. Gewirtz, and P. Lu. Chimeric RNA–DNA molecular beacon assay for ribonuclease H activity. *Molecular and Cellular Probes*, 16(4):277–283, August 2002.
- [46] Nicholas Rupcich, William Chiuman, Razvan Nutiu, Shirley Mei, Kulwinder K. Flora, Yingfu Li, and John D. Brennan. Quenching of Fluorophore-Labeled DNA Oligonucleotides by Divalent Metal Ions: Implications for Selection, Design, and Applications of Signaling Aptamers and Signaling Deoxyribozymes. *Journal of the American Chemical Society*, 128(3):780–790, January 2006.
- [47] Kwabena Sarpong and Bhaskar Datta. Nucleic-Acid-Binding Chromophores as Efficient Indicators of Aptamer-Target Interactions. *Journal of Nucleic Acids*, 2012:1–7, 2012.
- [48] Brian K. Shoichet. Interpreting Steep Dose-Response Curves in Early Inhibitor Discovery. *Journal of Medicinal Chemistry*, 49(25):7274–7277, December 2006.
- [49] Etai Shpigel, Arie Goldlust, Adi Eshel, Idit Kaplan Ber, Gilat Efroni, Yossi Singer, Ilan Levy, Mara Dekel, and Oded Shoseyov. Expression, purification and applications of staphylococcal Protein A fused to cellulose-binding domain. *Biotechnology and applied biochemistry*, 31(3):197–203, 2000.
- [50] D. Shu. A Viral RNA That Binds ATP and Contains a Motif Similar to an ATP-binding Aptamer from SELEX. *Journal of Biological Chemistry*, 278(9):7119–7125, February 2003.
- [51] Alice Susic, Anna Meneghello, Erica Cretaio, and Barbara Gatto. Human Thrombin Detection Through a Sandwich Aptamer Microarray: Interaction Analysis in Solution and in Solid Phase. *Sensors*, 11(12):9426–9441, October 2011.
- [52] Milan N. Stojanovic, Paloma de Prada, and Donald W. Landry. Aptamer-Based Folding Fluorescent Sensor for Cocaine. *Journal of the American Chemical Society*, 123(21):4928–4931, May 2001.
- [53] Shunxing Su, Razvan Nutiu, Carlos D. M. Filipe, Yingfu Li, and Robert Pelton. Adsorption and Covalent Coupling of ATP-Binding DNA Aptamers onto Cellulose. *Langmuir*, 23(3):1300–1302, January 2007.
- [54] Naohisa Sugimoto, Kiyohiko Igarashi, and Masahiro Samejima. Cellulose affinity purification of fusion proteins tagged with fungal family 1 cellulose-binding domain. *Protein Expression and Purification*, 82(2):290–296, April 2012.

- [55] Narayanan Sundararajan, Andrew Berlin, Mineo Yamakawa, Xing Su, Selena Chan, and Tae-Woong Koo. *Method for sequencing nucleic acids by observing the uptake of nucleotides modified with bulky groups*. Google Patents, November 2003. US Patent App. 10/705,389.
- [56] Olga Tatarinova, Vladimir Tsvetkov, Dmitry Basmanov, Nikolay Barinov, Igor Smirnov, Edward Timofeev, Dmitry Kaluzhny, Andrey Chuvilin, Dmitry Klinov, Anna Varizhuk, and Galina Pozmogova. Comparison of the ‘Chemical’ and ‘Structural’ Approaches to the Optimization of the Thrombin-Binding Aptamer. *PLoS ONE*, 9(2):e89383, February 2014.
- [57] N. T. Thet, D. R. Alves, J. E. Bean, S. Booth, J. Nzakizwanayo, A. E. R. Young, B. V. Jones, and A. Toby A. Jenkins. Prototype Development of the Intelligent Hydrogel Wound Dressing and Its Efficacy in the Detection of Model Pathogenic Wound Biofilms. *ACS Applied Materials & Interfaces*, page 151022154036007, October 2015.
- [58] Saw Yi Toh, Marimuthu Citartan, Subash C.B. Gopinath, and Thean-Hock Tang. Aptamers as a replacement for antibodies in enzyme-linked immunosorbent assay. *Biosensors and Bioelectronics*, 64:392–403, February 2015.
- [59] Nazgul Tuleuova, Caroline N. Jones, Jun Yan, Erlan Ramanculov, Yohei Yokobayashi, and Alexander Revzin. Development of an Aptamer Beacon for Detection of Interferon-Gamma. *Analytical Chemistry*, 82(5):1851–1857, March 2010.
- [60] Hidehito Urata, Kanba Nomura, Shun-ichi Wada, and Masao Akagi. Fluorescent-labeled single-strand ATP aptamer DNA: Chemo- and enantio-selectivity in sensing adenosine. *Biochemical and Biophysical Research Communications*, 360(2):459–463, August 2007.
- [61] N. K. Vaish. Zeptomole detection of a viral nucleic acid using a target-activated ribozyme. *RNA*, 9(9):1058–1072, September 2003.
- [62] Anna M. Varizhuk, Vladimir B. Tsvetkov, Olga N. Tatarinova, Dmitry N. Kaluzhny, Vladimir L. Florentiev, Edward N. Timofeev, Anna K. Shchvolkina, Olga F. Borisova, Igor P. Smirnov, Sergei L. Grokhovsky, Anton V. Aseychev, and Galina E. Pozmogova. Synthesis, characterization and in vitro activity of thrombin-binding DNA aptamers with triazole internucleotide linkages. *European Journal of Medicinal Chemistry*, 67:90–97, September 2013.
- [63] Wen Wan, Dongmei Wang, Xiaolian Gao, and Jiong Hong. Expression of family 3 cellulose-binding module (CBM3) as an affinity tag for recombinant proteins in yeast. *Applied Microbiology and Biotechnology*, 91(3):789–798, August 2011.
- [64] Dennis Y. Wang, Beatrice H.Y. Lai, and Dipankar Sen. A General Strategy for Effector-mediated Control of RNA-cleaving Ribozymes and DNA Enzymes. *Journal of Molecular Biology*, 318(1):33–43, April 2002.
- [65] Shuo Wang, Can Zhang, Junping Wang, and Yan Zhang. Development of colloidal gold-based flow-through and lateral-flow immunoassays for the rapid detection of the insecticide carbaryl. *Analytica Chimica Acta*, 546(2):161–166, August 2005.
- [66] Markus Wieland, Armin Benz, Benedikt Klauser, and Jörg S. Hartig. Artificial Ribozyme Switches Containing Natural Riboswitch Aptamer Domains. *Angewandte Chemie International Edition*, 48(15):2715–2718, March 2009.
- [67] Itamar Willner and Maya Zayats. Electronic Aptamer-Based Sensors. *Angewandte Chemie International Edition*, 46(34):6408–6418, August 2007.

- [68] M.-L. Winz, A. Samanta, D. Benzinger, and A. Jaschke. Site-specific terminal and internal labeling of RNA by poly(A) polymerase tailing and copper-catalyzed or copper-free strain-promoted click chemistry. *Nucleic Acids Research*, 40(10):e78–e78, May 2012.
- [69] Isaac Wong and Timothy M. Lohman. A double-filter method for nitrocellulose-filter binding: application to protein-nucleic acid interactions. *Proceedings of the National Academy of Sciences*, 90(12):5428–5432, 1993.
- [70] Yu Xiang, Aijun Tong, and Yi Lu. Abasic Site-Containing DNzyme and Aptamer for Label-Free Fluorescent Detection of Pb²⁺ and Adenosine with High Sensitivity, Selectivity, and Tunable Dynamic Range. *Journal of the American Chemical Society*, 131(42):15352–15357, October 2009.
- [71] Hui Xu, Xun Mao, Qingxiang Zeng, Shengfu Wang, Abdel-Nasser Kawde, and Guodong Liu. Aptamer-Functionalized Gold Nanoparticles as Probes in a Dry-Reagent Strip Biosensor for Protein Analysis. *Analytical Chemistry*, 81(2):669–675, January 2009.
- [72] Chaoyong James Yang, Steffen Jockusch, Marie Vicens, Nicholas J. Turro, and Weihong Tan. Light-switching excimer probes for rapid protein monitoring in complex biological fluids. *Proceedings of the National Academy of Sciences of the United States of America*, 102(48):17278–17283, 2005.
- [73] Cheng Yang, Vasilica Lates, Beatriz Prieto-Simón, Jean-Louis Marty, and Xiurong Yang. Aptamer-DNzyme hairpins for biosensing of Ochratoxin A. *Biosensors and Bioelectronics*, 32(1):208–212, February 2012.
- [74] Can Zhang, Yan Zhang, and Shuo Wang. Development of Multianalyte Flow-through and Lateral-Flow Assays Using Gold Particles and Horseradish Peroxidase as Tracers for the Rapid Determination of Carbaryl and Endosulfan in Agricultural Products. *Journal of Agricultural and Food Chemistry*, 54(7):2502–2507, April 2006.
- [75] Y.-H. Percival Zhang, Jingbiao Cui, Lee R. Lynd, and Lana R. Kuang. A Transition from Cellulose Swelling to Cellulose Dissolution by *o*-Phosphoric Acid: Evidence from Enzymatic Hydrolysis and Supramolecular Structure. *Biomacromolecules*, 7(2):644–648, February 2006.
- [76] V. Cengiz Özalp, Dilek Çam, Frank J. Hernandez, Luiza I. Hernandez, Thomas Schäfer, and Hüseyin A. Öktem. Small molecule detection by lateral flow strips via aptamer-gated silica nanopores. *The Analyst*, 141(8):2595–2599, 2016.